EXHIBIT L

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HONORABLE BARBARA J. ROTHSTEIN

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UNITED STATES DISTRICT COURT
WESTERN DISTRICT OF WASHINGTON
AT SEATTLE

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WSOU INVESTMENTS, LLC d/b/a BRAZOS
LICENSING AND DEVELOPMENT, a
Delaware limited liability company,

2:21-CV-00126-BJR

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Plaintiff,

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v.

**PLAINTIFF'S DISCLOSURE OF
ASSERTED CLAIMS AND
INFRINGEMENT CONTENTIONS**

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F5 NETWORKS, INC., a Washington
Corporation,

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Defendant.

Plaintiff WSOU INVESTMENTS, LLC ("Plaintiff" or "WSOU") hereby serves its

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Disclosure of Asserted Claims and Infringement Contentions ("Infringement Contentions") on

Defendant F5 NETWORKS, INC. ("Defendant" or "F5").

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I.   **DISCLOSURE OF ASSERTED CLAIMS**

Plaintiff currently asserts that the Defendant infringes the following claims of U.S. Patent

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No. 7,548,945 (the "'945 Patent," "Asserted Patent," or "Patient-in-Suit"): Claims 1, 2, 3, 6, 7,

8, 10, 12, 13, 14, and 16 (the "Asserted Claims").

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The foregoing is based upon Plaintiff's research and analysis to date, without the benefit

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of discovery. Plaintiff reserves the right to add, delete, substitute or otherwise amend this list of

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PLAINTIFF'S DISCLOSURE OF ASSERTED CLAIMS AND
INFRINGEMENT CONTENTIONS – 1
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Asserted Claims based on discovery or other circumstances, in a manner consistent with the Federal Rules of Civil Procedure, local rules, and standing orders.

II.   INFRINGEMENT CONTENTIONS

For each Asserted Claim, Plaintiff identifies the following Accused Instrumentalities of which it is currently aware. The identification of Accused Instrumentalities is based on Plaintiff's research and analysis to date, without the benefit of discovery from the Defendant. Plaintiff reserves the right to add, delete, substitute or otherwise amend this list of Accused Instrumentalities based on discovery or other circumstances, in a manner consistent with the Federal Rules of Civil Procedure, local rules, and standing orders.

The Accused Instrumentalities include, without limitation, the following:

- F5 BIG-IP hardware and software products, including BIG-IP DNS, F5 VIPRION Platform and products, F5 BIG-IP iSeries Platform and products, and BIG-IQ Centralized Management.

- All past, current and future F5 products and services that operate in the same or substantially similar manner as the specifically identified products and services above and described in Exhibit 1.

- All past, current and future F5 products and services that have the same or substantially similar features as the specifically identified products and services above and described in Exhibit 1.

Plaintiff's infringement contentions apply to the Accused Instrumentalities as well as all other past, current and future hardware and software products and services developed, made, used,

PLAINTIFF'S DISCLOSURE OF ASSERTED CLAIMS AND
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offered for sale, sold, imported, and provided by F5 that contain or make use of the Patented Technology.[1]

Further, Exhibit 1, which is attached hereto and incorporated by reference, is an exemplary infringement claim chart identifying specifically where each limitation of each Asserted Claim is found within each Accused Instrumentality or practiced by each Accused Instrumentality.

Plaintiff asserts that Defendant has directly infringed and continues to directly infringe the Asserted Claims literally through the Accused Instrumentalities by making, using, offering for sale, and/or selling, or importing into the United States the Accused Instrumentalities. To the extent that Defendant alleges that one or more limitations of the Asserted Claims are not literally found in the Accused Instrumentalities, Plaintiff alleges that such limitations are found in or practiced by the Accused Instrumentalities under the doctrine of equivalents. Any differences alleged to exist between any of the Asserted Claims and any of the Accused Instrumentalities are insubstantial and each Accused Instrumentality also meets each limitation under the doctrine of equivalents as the identified features of the Accused Instrumentality performs substantially the same function in substantially the same way to achieve substantially the same result as the corresponding claim limitation.

Plaintiff further asserts that Defendant has indirectly infringed and continues to indirectly infringe by actively inducing and contributing to infringement of one or more of the claims of the Asserted Patent through the Accused Instrumentalities. Plaintiff also asserts that these third-parties directly infringe at least one or more of the claims of the Asserted Patent through the use of, implementation of, and/or integration with one or more of the Accused Instrumentalities.

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[1] "Patented Technology" means all technologies described in the claims of the Patent-in-Suit, including, but not limited to, active load balancing, including using clustered nodes as authoritative domain name servers.

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For example, Defendant has actively induced infringement by encouraging the use of the Accused Instrumentalities (*e.g.,* BIG-IP DNS, F5 VIPRION Platform and products, F5 BIG-IP iSeries Platform and products, and BIG-IQ Centralized Management) in ways that infringe this claim. Defendant knew or should have known that such encouragement would induce infringement. Defendant has taken active steps with the specific intent to encourage and cause others to use each Accused Instrumentality in ways that infringe this claim. Such active steps by Defendant with specific intent to induce infringement have included, among other things, advertising, promoting, marketing, making available for use, offering to sell, and/or selling the Accused Instrumentalities to others; encouraging and influencing others to import, offer to sell, and/or sell the Accused Instrumentalities; directing and instructing others to use the Accused Instrumentalities in infringing ways; and by providing the Accused Instrumentalities to others, including, but not limited to, service providers and network operators. F5 has performed the aforementioned active steps with the knowledge of the Asserted Patent at least as of the date when a complaint was filed in the Eastern District of Virginia (Case Nos. 3:20-cv-00719, 3:20-cv-00721; 1:20-cv-01081, and 1:20-cv-01083). F5 has known or should have known that the acts it has induced constitute infringement because, for instance, it has been aware that network operators and service providers that purchase the Accused Instrumentalities will use them, resulting in direct infringement. (*See, e.g.,* https://www.f5.com/pdf/products/big-ip-dns-datasheet.pdf, Exhibit A; https://www.youtube.com/watch?v=9fooqDbwJIk, Exhibit B; https://www.f5.com/products/dns-delivery, Exhibit D; https://www.youtube.com/watch?v=UufRG2eeFmQ, Exhibit F; https://www.f5.com/pdf/products/big-ip-platforms-datasheet.pdf, Exhibit G; https://www.f5.com/products/big-ip-services, Exhibit J; https://www.f5.com/products/big-ip-services/iseries-appliance#large, Exhibit K.)

PLAINTIFF'S DISCLOSURE OF ASSERTED CLAIMS AND
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Further, for instance, BIG-IP DNS, F5 VIPRION Platform and products, F5 BIG-IP iSeries Platform and products, and BIG-IQ Centralized Management are known by F5 to be especially made or especially adapted for use to infringe the Asserted Patent, and are not staple articles or commodity of commerce suitable for substantial non-infringing uses. Defendant contributes to the infringement of the Asserted Patent by making available for use, offering for sale, selling, and/or importing the Accused Instrumentalities to third parties, who use the Accused Instrumentalities and/or practice one or more claims of the Asserted Patent. (*See, e.g.,* https://www.f5.com/pdf/products/big-ip-dns-datasheet.pdf, Exhibit A; https://www.youtube.com/watch?v=9fooqDbwJIk, Exhibit B; https://www.f5.com/products/dns-delivery, Exhibit D; https://www.youtube.com/watch?v=UufRG2eeFmQ, Exhibit F; https://www.f5.com/pdf/products/big-ip-platforms-datasheet.pdf, Exhibit G; https://www.f5.com/products/big-ip-services, Exhibit J; https://www.f5.com/products/big-ip-services/iseries-appliance#large, Exhibit K.) Moreover, F5 has had notice of the Asserted Patent at least as of the filing of the Complaint in the Eastern District of Virginia.

These Infringement Contentions, including Exhibit 1, are based upon publicly-available information, and Plaintiff's research and analysis to date. The Accused Instrumentalities involve confidential, proprietary designs that are not publicly available, and Defendant has not yet provided discovery. Discovery is ongoing, and Plaintiff anticipates that the subject matter of these infringement contentions will be the subject of expert discovery. Discovery will provide evidence of Defendant's infringement, may lead to the discovery of additional instances of infringement, and may also enable identification of additional claims that are infringed by Defendant. Plaintiff reserves the right to add, delete, substitute, or otherwise further amend these Infringement Contentions based on discovery or other circumstances, in a manner consistent with the Federal Rules of Civil Procedure, local rules, and standing orders. Plaintiff explicitly reserves the right to

PLAINTIFF'S DISCLOSURE OF ASSERTED CLAIMS AND
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further modify and/or supplement these contentions with additional or different theories and/or additional or different evidence.

III.   PRIORITY DATE

Each of the Asserted Claims of the '945 Patent is entitled to a priority date of no later than April 13, 2005. The subject matter described by the Asserted Claims, however, may have been conceived and reduced to practice prior to this priority date. Plaintiff's research and analysis is ongoing and Plaintiff reserves the right to assert that the claims are entitled to a priority date that is earlier than the above date.

DATED this 8th day of April, 2021.

CORR CRONIN LLP

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PLAINTIFF'S DISCLOSURE OF ASSERTED CLAIMS AND
INFRINGEMENT CONTENTIONS – 6
(CASE NO. 2:21-CV-00126-BJR)

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PLAINTIFF'S DISCLOSURE OF ASSERTED CLAIMS AND
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CERTIFICATE OF SERVICE

The undersigned certifies as follows:

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1.   I am employed at Corr Cronin LLP, attorneys for Plaintiff WSOU Investments, LLC d/b/a Brazos Licensing and Development herein.

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2.   On April 8, 2021, I caused a true and correct copy of the foregoing document to be served on the following parties in the manner indicated below:

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PLAINTIFF'S DISCLOSURE OF ASSERTED CLAIMS AND
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I declare under penalty of perjury under the laws of the state of Washington that the foregoing is true and correct.

DATED: April 8, 2021, at Seattle, Washington.

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<u>s/ Monica Dawson</u>
Monica Dawson

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PLAINTIFF'S DISCLOSURE OF ASSERTED CLAIMS AND
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Exhibit 1 to
WSOU Investments, LLC's
Infringement Contentions
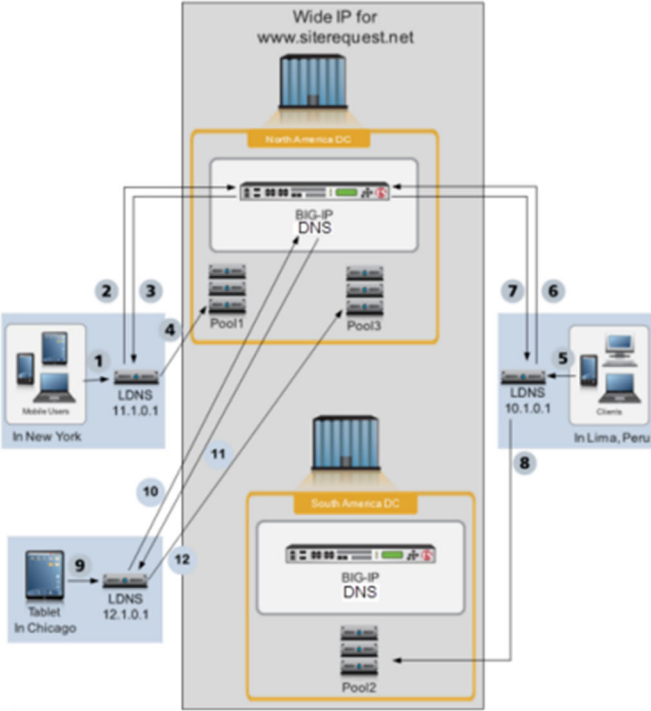
Infringement Claim Chart for U.S. Patent No. 7,548,945 (the "Asserted Patent")
Claims 1, 2, 3, 6, 7, 8, 10, 12, 13, 14, and 16 (the "Asserted Claims")
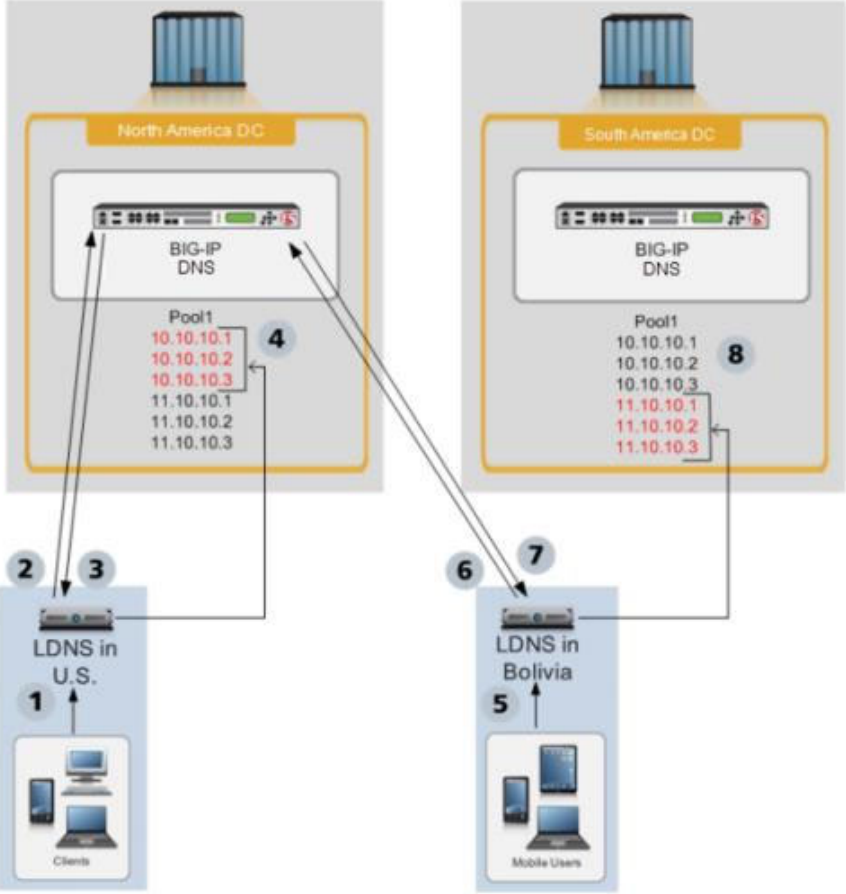
The Accused Instrumentalities include, without limitation, F5 BIG-IP hardware and software products, including BIG-IP DNS, F5 VIPRION Platform and products, and F5 BIG-IP iSeries Platform and products, and BIG-IQ Centralized Management; all past, current and future F5 products and services that operate in the same or substantially similar manner as the specifically identified products and services; and all past, current and future F5 products and services that have the same or substantially similar features as the specifically identified products and services.

WSOU Investments, LLC ("WSOU" or "Plaintiff") contends that F5 Networks, Inc. ("F5 Networks," "F5" or "Defendant"), including F5's employees, directly infringes each of the Asserted Claims, either literally or under the doctrine of equivalents. WSOU also contends that F5 has indirectly infringed and continues to indirectly infringe by contributing to and actively inducing infringement of one or more of the Asserted Claims.

WSOU does not intend this exemplary infringement claim chart to be limiting, and WSOU reserves its rights to pursue other accused instrumentalities, patent claims, evidence, and infringement arguments in this case.

Exhibits	Bates Numbers	Links
Exhibit A	WSOU-F5-0001903 – WSOU-F5-0001921	https://www.f5.com/pdf/products/big-ip-dns-datasheet.pdf
Exhibit B	WSOU-F5-0001824 – WSOU-F5-0001826	https://www.youtube.com/watch?v=9fooqDbwJIk
Exhibit C	WSOU-F5-0001835 – WSOU-F5-0001862	https://support.f5.com/csp/article/K55502976
Exhibit D	WSOU-F5-0001922 – WSOU-F5-0001925	https://www.f5.com/products/dns-delivery
Exhibit E	WSOU-F5-0001863 – WSOU-F5-0001902	https://techdocs.f5.com/content/kb/en-us/products/big-ip-dns/manuals/product/bigip-dns-load-balancing-12-1-0/_jcr_content/pdfAttach/download/file.res/BIG-IP_DNS__Load_Balancing.pdf
Exhibit F	WSOU-F5-0001827 – WSOU-F5-0001829	https://www.youtube.com/watch?v=UufRG2eeFmQ
Exhibit G	WSOU-F5-0001567 – WSOU-F5-0001584	https://www.f5.com/pdf/products/big-ip-platforms-datasheet.pdf
Exhibit H	WSOU-F5-0002032 – WSOU-F5-0002043	https://www.f5.com/pdf/products/viprion-overview-ds.pdf
Exhibit I	WSOU-F5-0001934 – WSOU-F5-0002031	https://techdocs.f5.com/content/kb/en-us/products/big-ip_ltm/manuals/product/vcmp-administration-viprion-13-1-0/_jcr_content/pdfAttach/download/file.res/vCMP_for_VIPRION_Systems__Administration.pdf
Exhibit J	WSOU-F5-0001821 – WSOU-F5-0001823	https://www.f5.com/products/big-ip-services
Exhibit K	WSOU-F5-0001830 – WSOU-F5-0001834	https://www.f5.com/products/big-ip-services/iseries-appliance#large
Exhibit L	WSOU-F5-0001926 – WSOU-F5-0001928	https://www.cdw.com/product/f5-big-ip-iseries-i2600-dns-load-balancing-device/4404556
Exhibit M	WSOU-F5-0001929 – WSOU-F5-0009133	https://www.shi.com/Product/33018342?EventID=727c6758-6368-4353-855b-9fb22ba1b85c

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Claims	Infringement Analysis with Exemplary Infringement Evidence
Claim 1	
1Pre. A system comprising: **1a.** a plurality of network devices grouped in a cluster, wherein each network device has a different respective device internet protocol (IP) address; wherein one of the network devices is designated as a master device;	On information and belief, the Accused Instrumentalities (*e.g.,* BIG-IP DNS, F5 VIPRION Platform and products, F5 BIG-IP iSeries Platform and products) include a system that comprises a plurality of network devices grouped in a cluster, wherein each network device has a different respective device internet protocol (IP) address; wherein one of the network devices is designated as a master device, as shown by the following exemplary evidence. (*See, e.g.,* the corresponding analysis for 12a. below for direct and indirect infringement analysis for the preamble and limitation here.) For instance, BIG-IP DNS distributes DNS name resolution requests, first to the best available pool in a wide IP, and then to the best available virtual server within that pool, as shown below. https://techdocs.f5.com/content/kb/en-us/products/big-ip-dns/manuals/product/bigip-dns-load-balancing-12-1-0/_jcr_content/pdfAttach/download/file.res/BIG-IP_DNS__Load_Balancing.pdf, Exhibit E

Claims	Infringement Analysis with Exemplary Infringement Evidence
	As another example, BIG-IP DNS is acting as the master device, and there is a plurality of servers acting as a cluster of nodes to which BIG-IP DNS distributes DNS name resolution requests, as exemplified below. **Citation 1: Load balancing to distribute DNS request** **Figure 4: Pool configured for Topology load balancing** https://techdocs.f5.com/content/kb/en-us/products/big-ip-dns/manuals/product/bigip-dns-load-balancing-12-1-0/_jcr_content/pdfAttach/download/file.res/BIG-IP_DNS__Load_Balancing.pdf, Exhibit E

Claims	Infringement Analysis with Exemplary Infringement Evidence
	In addition to direct infringement of this claim by F5 (including its employees), F5 also has indirectly infringed and continues to indirectly infringe by actively inducing others, including network operators and services providers, to directly infringe this claim (including limitation 1a.) by using the Accused Instrumentalities. For instance, F5 has actively induced infringement by encouraging the use of the Accused Instrumentalities (*e.g.,* BIG-IP DNS; F5 VIPRION Platform and products; F5 BIG-IP iSeries Platform and products; BIG-IQ Centralized Management) in ways that infringe this claim. F5 knew or should have known that such encouragement would induce infringement. Such induced infringement has occurred at least since F5 became aware of the Asserted Patent. F5 has had knowledge of the Asserted Patent at least since the date when a complaint was filed in the Eastern District of Virginia. F5 has taken active steps with the specific intent to encourage and cause others to use each Accused Instrumentality in ways that infringe this claim. Such active steps by F5 with specific intent to induce infringement have included, among other things, advertising, promoting, marketing, making available for use, offering to sell, and/or selling the Accused Instrumentalities to others; encouraging and influencing other companies to import, offer to sell, and/or sell the Accused Instrumentalities; and directing and instructing others to use the Accused Instrumentalities in infringing ways. F5 has performed the aforementioned active steps with the knowledge of the Asserted Patent at least since the date when a complaint was filed in the Eastern District of Virginia. F5 has known or should have known that the acts it has induced constitute infringement because, for instance, it has been aware that network operators and service providers that purchase the Accused Instrumentalities will use them, resulting in direct infringement. (*See, e.g.,* https://www.f5.com/pdf/products/big-ip-dns-datasheet.pdf, Exhibit A; https://www.youtube.com/watch?v=9fooqDbwJIk, Exhibit B; https://www.f5.com/products/dns-delivery, Exhibit D; https://www.youtube.com/watch?v=UufRG2eeFmQ, Exhibit F; https://www.f5.com/pdf/products/big-ip-platforms-datasheet.pdf, Exhibit G; https://www.f5.com/products/big-ip-services, Exhibit J; https://www.f5.com/products/big-ip-services/iseries-appliance#large, Exhibit K.) Further, F5 has indirectly infringed and continues to indirectly infringe this claim by contributing to infringement of this claim. For instance, components of the Accused Instrumentalities (*e.g.,* BIG-IP DNS; F5 VIPRION Platform and products; F5 BIG-IP iSeries Platform and products; BIG-IQ Centralized Management) are known by F5 to be especially made or especially adapted for use to infringe this claim (including limitation 1a.), and each is not a staple article or commodity of commerce suitable for substantial non-infringing uses. F5 contributes to the infringement of this claim by making available for use, offering for sale, selling, and/or importing the components of the instrumentalities, to third parties, who, for example, use such components to practice this claim. (*See, e.g.,* https://www.f5.com/pdf/products/big-ip-dns-datasheet.pdf, Exhibit A; https://www.youtube.com/watch?v=9fooqDbwJIk, Exhibit B; https://www.f5.com/products/dns-delivery, Exhibit D; https://www.youtube.com/watch?v=UufRG2eeFmQ, Exhibit F;

Claims	Infringement Analysis with Exemplary Infringement Evidence
	https://www.f5.com/pdf/products/big-ip-platforms-datasheet.pdf, Exhibit G; https://www.f5.com/products/big-ip-services, Exhibit J; https://www.f5.com/products/big-ip-services/iseries-appliance#large, Exhibit K.) Moreover, F5 has had notice of the Asserted Patent at least as of the filing date of a complaint in the Eastern District of Virginia.
1b. wherein the master device is assigned an IP address corresponding to an IP address of an authoritative domain name server; wherein each network device is configured to communicate status information to at least the master device in the cluster;	On information and belief, the Accused Instrumentalities (*e.g.,* BIG-IP DNS, F5 VIPRION Platform and products, F5 BIG-IP iSeries Platform and products) include a system wherein the master device is assigned an IP address corresponding to an IP address of an authoritative domain name server; wherein each network device is configured to communicate status information to at least the master device in the cluster. (*See, e.g.,* the corresponding analysis for 12a. and 12b. below for direct and indirect infringement analysis for this limitation.)
1c. wherein the master device is configured to receive a domain name service (DNS) query based upon a client request,	On information and belief, the Accused Instrumentalities (*e.g.,* BIG-IP DNS, F5 VIPRION Platform and products, F5 BIG-IP iSeries Platform and products) include a system wherein the master device is configured to receive a domain name service (DNS) query based upon a client request. (*See, e.g.,* the corresponding analysis for 12c. below for direct and indirect infringement analysis for this limitation.)
1d. select one of the network devices to communicate with the	On information and belief, the Accused Instrumentalities (*e.g.,* BIG-IP DNS, F5 VIPRION Platform and products, F5 BIG-IP iSeries Platform and products) include a system wherein the master device is configured to select one of the network devices to communicate with the client based on the status information of each of the network devices. (*See, e.g.,* the corresponding analysis for 12d. below for direct and indirect infringement analysis for this limitation.)

Claims	Infringement Analysis with Exemplary Infringement Evidence
client based on the status information of each of the network devices, and	
1e. return a device IP address of the selected one of the network devices in response to the DNS query.	On information and belief, the Accused Instrumentalities (*e.g.,* BIG-IP DNS, F5 VIPRION Platform and products, F5 BIG-IP iSeries Platform and products) include a system wherein the master device is configured to return a device IP address of the selected one of the network devices in response to the DNS query. (*See, e.g.,* the corresponding analysis for 12e. below for direct and indirect infringement analysis for this limitation.)
Claim 2	
The system of claim 1, wherein each network device selects the status information from the group comprising network device presence, load percentage, number of active connections, and device IP address.	On information and belief, the Accused Instrumentalities (*e.g.,* BIG-IP DNS, F5 VIPRION Platform and products, F5 BIG-IP iSeries Platform and products) include a system of claim 1, wherein each network device selects the status information from the group comprising network device presence, load percentage, number of active connections, and device IP address. (*See, e.g.,* the corresponding analysis for claim 13 below for direct and indirect infringement analysis for this claim.)
Claim 3	
The system of claim 1, wherein the master device selects one of the network devices according to a	On information and belief, the Accused Instrumentalities (*e.g.,* BIG-IP DNS, F5 VIPRION Platform and products, F5 BIG-IP iSeries Platform and products) include a system of claim 1, wherein the master device selects one of the network devices according to a predefined load balancing algorithm. (*See, e.g.,* the corresponding analysis for claim 14 for direct and indirect infringement analysis for this claim.)

Claims	Infringement Analysis with Exemplary Infringement Evidence
predefined load balancing algorithm.	
Claim 6	
6Pre. An apparatus comprising: **6a.** a processor configured to receive status information from each of a plurality of network devices grouped in a cluster	On information and belief, the Accused Instrumentalities (*e.g.,* BIG-IP DNS, F5 VIPRION Platform and products, F5 BIG-IP iSeries Platform and products) include an apparatus that comprises a processor configured to receive status information from each of a plurality of network devices grouped in a cluster. (*See, e.g.,* the corresponding analysis for 12a. and 12b. below for direct and indirect infringement analysis for these limitations.) By way of an example, BIG-IP DNS can be deployed on a VIPRION Platform. F5 supports virtual clustered multiprocessing, which facilitates multiple BIG IP instances such as BIG-IP DNS or multiple virtual servers (a plurality of network devices) to run on the F5 VIPRION Platform, as shown below. With F5 Virtual Clustered Multiprocessing™ multiple virtual BIG-IP instances can be run on the VIPRION platform, each with dedicated CPU/memory resources allocated by the user. https://www.f5.com/pdf/products/viprion-overview-ds.pdf, Exhibit H

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- **Query and response performance and scalability**—Linearly scale on larger platforms and

  multi-bladed chassis for increased performance by integrating functions in TMOS. BIG-IP

  DNS is can be provisioned for platforms that support F5 Virtual Clustered Multiprocessing™

  (vCMP®).

https://www.f5.com/pdf/products/big-ip-dns-datasheet.pdf, Exhibit A

Moreover, Virtual Clustered Multiprocessing (vCMP) facilitates multiple instances of BIG-IP software on a single hardware platform (VIPRION), as shown below.

Virtual Clustered Multiprocessing™ (vCMP®) is a feature of the BIG-IP® system that allows you to provision and manage multiple, hosted instances of the BIG-IP software on a single hardware platform. A vCMP hypervisor allocates a dedicated amount of CPU, memory, and storage to each BIG-IP instance. As a vCMP system administrator, you can create BIG-IP instances and then delegate the management of the BIG-IP software within each instance to individual administrators.

https://techdocs.f5.com/content/kb/en-us/products/big-ip_ltm/manuals/product/vcmp-administration-viprion-13-1-0/_jcr_content/pdfAttach/download/file.res/vCMP_for_VIPRION_Systems__Administration.pdf, Exhibit I
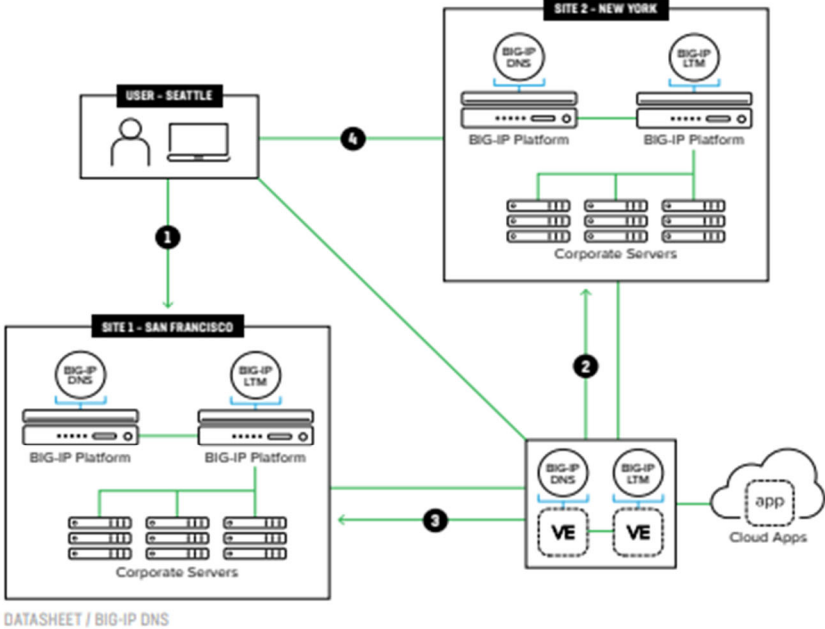
As another example, the F5 VIPRION chassis consists of multiple blades and each having corresponding processor cores. Processor cores are allocated to BIG-IP DNS, which receives the status information of its peer servers.
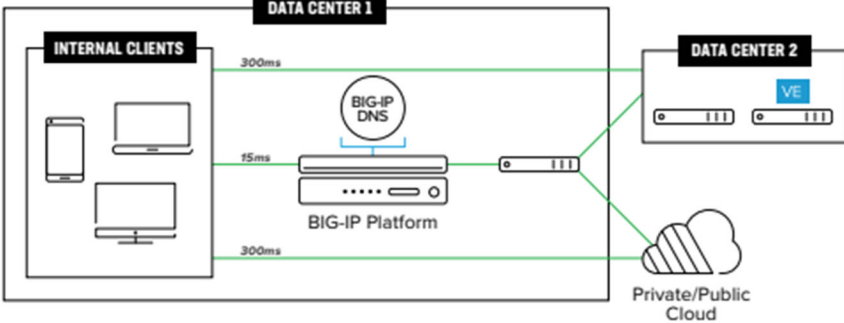
VIPRION 4800 and VIPRION 4480 chassis: The VIPRION 4800 chassis supports up to eight

blades, and the VIPRION 4480 chassis supports up to four blades. The VIPRION 4450 blade has

24 processor cores (a total of 48 hyperthreaded logical processing cores), and the VIPRION 4300

blade has 12 processor cores (a total of 24 hyperthreaded logical processing cores).

https://www.f5.com/pdf/products/viprion-overview-ds.pdf, Exhibit H

Claims	Infringement Analysis with Exemplary Infringement Evidence
	Core A *core* is a portion of a blade's CPU and memory that the vCMP host allocates to a guest. The amount of CPU and memory that a core provides varies by blade platform. https://techdocs.f5.com/content/kb/en-us/products/big-ip_ltm/manuals/product/vcmp-administration-viprion-13-1-0/_jcr_content/pdfAttach/download/file.res/vCMP_for_VIPRION_Systems__Administration.pdf, Exhibit I
6b. the processor further configured to receive a domain name service (DNS) query based upon a client request;	On information and belief, the Accused Instrumentalities (*e.g.,* BIG-IP DNS, F5 VIPRION Platform and products, F5 BIG-IP iSeries Platform and products) include an apparatus that comprises a processor that is further configured to receive a domain name service (DNS) query based upon a client request. (*See, e.g.,* the corresponding analysis for 12c. below for direct and indirect infringement analysis for this limitation.) For instance, the accused product is associated with the processor cores which is further configured to receive a domain name service (DNS) query based upon a client request. BIG-IP DNS manages requests with multicore processing and F5 DNS Express which increases the DNS performance dramatically up to 50 million Response Per Second (RPS) to quickly respond to all queries, as shown below. BIG-IP DNS delivers hyperscale performance that can handle even the busiest apps and websites. When apps have a volume spike in DNS queries due to legitimate requests or DDoS attacks, BIG-IP DNS manages requests with multicore processing and F5 DNS Express™, dramatically increasing authoritative DNS performance up to 50 million RPS to quickly respond to all queries. This scalability helps your organization provide the best quality of service (QoS) for your users while eliminating poor application performance. DNS Express improves standard DNS server functions by offloading DNS responses as an authoritative DNS server. BIG-IP DNS accepts zone transfers of DNS records from the primary DNS server and answers DNS queries authoritatively. https://www.f5.com/pdf/products/big-ip-dns-datasheet.pdf, Exhibit A

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Claims	Infringement Analysis with Exemplary Infringement Evidence
	As another example, the processor cores receive the DNS query and even reduces DNS latency up to 80 percent. DNS latency can be reduced by enabling DNS cache on BIG-IP DNS and making it respond to client requests immediately. On the F5 VIPRION platform, DNS caching hyper scales for ultimate query response performance and delivers linear scalability across multi-bladed chassis, as exemplified below. **DNS CACHING AND RESOLVING** DNS latency can be reduced by enabling a DNS cache on BIG-IP DNS and having it respond immediately to client requests. BIG-IP DNS can consolidate the cache and increase the cache hit rate. This reduces DNS latency up to 80 percent, with F5 DNS Caching reducing the number of DNS queries for the same site. When used in hardware on the F5 VIPRION® platform, DNS caching hyperscales for ultimate query response performance and delivers linear scalability across multi-bladed chassis. In addition to caching, BIG-IP DNS allows the device to do its own DNS resolving without requiring the use of an upstream DNS resolver. https://www.f5.com/pdf/products/big-ip-dns-datasheet.pdf, Exhibit A
6c. select one network device from among the cluster of the network devices including the network device itself to communicate with a client based on the status information of each of the network devices	On information and belief, the Accused Instrumentalities (*e.g.,* BIG-IP DNS, F5 VIPRION Platform and products, F5 BIG-IP iSeries Platform and products) include an apparatus that comprises a processor that is further configured to receive a domain name service (DNS) query based upon a client request. (*See, e.g.,* the corresponding analysis for 12d. below for direct and indirect infringement analysis for this limitation.) For instance, BIG-IP DNS ensures users are always connected to the best site and it uses metrics collected from each site (status information) and identifies the best server. In this way, selection of one of the network devices from among the cluster of network devices is possible, as shown below.

Claims	Infringement Analysis with Exemplary Infringement Evidence
	Citation 2: BIG-IP DNS Figure 5: BIG-IP DNS ensures users are always connected to the best site. ❶ User queries local DNS to resolve domain, and local DNS queries BIG-IP DNS. ❷ BIG-IP DNS uses metrics collected for each site and identifies the best server. ❸ BIG-IP DNS responds to local DNS with IP address. ❹ User is connected to best site on premises or in multi-cloud. https://www.f5.com/pdf/products/big-ip-dns-datasheet.pdf, Exhibit A
6d. return a device internet protocol (IP) address of the selected one of the network devices in response to the DNS query,	On information and belief, the Accused Instrumentalities (*e.g.,* BIG-IP DNS, F5 VIPRION Platform and products, F5 BIG-IP iSeries Platform and products) include an apparatus that comprises a processor that is further configured to return a device internet protocol (IP) address of the selected one of the network devices in response to the DNS query. (*See, e.g.,* the corresponding analysis for 12e. below for direct and indirect infringement analysis for this limitation.)
6e.	On information and belief, the Accused Instrumentalities (*e.g.,* BIG-IP DNS, F5 VIPRION Platform and products, F5 BIG-IP iSeries Platform and products) include an apparatus that comprises a processor that is further configured to

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Claims	Infringement Analysis with Exemplary Infringement Evidence
wherein the network device is designated as a master device and is assigned an IP address corresponding to an IP address of an authoritative domain name server.	return a device internet protocol (IP) address of the selected one of the network devices in response to the DNS query. (*See, e.g.,* the corresponding analysis for 12a. below for direct and indirect infringement analysis for this limitation.) For instance, BIG-IP DNS supports all common DNS deployments that are either authoritative or locally resolved DNS. Specific zone requests not cached are forwarded to name servers for faster DNS resolving, allowing users to receive expedient responses, as exemplified below. Figure 1: BIG-IP DNS supports all common DNS deployments that are either authoritative or locally resolved DNS. Specific zone requests not cached are forwarded to name servers for faster DNS resolving, allowing users to receive expedient responses. https://www.f5.com/pdf/products/big-ip-dns-datasheet.pdf, Exhibit A This scalability helps your organization provide the best quality of service (QoS) for your users while eliminating poor application performance. DNS Express improves standard DNS server functions by offloading DNS responses as an authoritative DNS server. BIG-IP DNS accepts zone transfers of DNS records from the primary DNS server and answers DNS queries authoritatively. https://www.f5.com/pdf/products/big-ip-dns-datasheet.pdf, Exhibit A
Claim 7	
The apparatus of claim 6, wherein the	On information and belief, the Accused Instrumentalities (*e.g.,* BIG-IP DNS, F5 VIPRION Platform and products, F5 BIG-IP iSeries Platform and products) include the apparatus of claim 6, wherein the processor receives status

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Claims	Infringement Analysis with Exemplary Infringement Evidence
processor receives status information selected from the group comprising network device presence, load percentage, number of active connections, and device IP address.	information selected from the group comprising network device presence, load percentage, number of active connections, and device IP address. (*See, e.g.,* the corresponding analysis for claim 13 for direct and indirect infringement analysis for this claim.)
Claim 8	
The apparatus of claim 6, wherein the processor selects one of the network devices according to a predefined load balancing algorithm.	On information and belief, the Accused Instrumentalities (*e.g.,* BIG-IP DNS, F5 VIPRION Platform and products, F5 BIG-IP iSeries Platform and products) include the apparatus of claim 6, wherein the processor selects one of the network devices according to a predefined load balancing algorithm. (*See, e.g.,* the corresponding analysis for claim 14 for direct and indirect infringement analysis for this claim.)
Claim 10	
The apparatus of claim 6, wherein the processor no longer receives status information from a network device removed from the cluster, wherein the processor is further configured to select one of the network devices other than the removed network device to	On information and belief, the Accused Instrumentalities (*e.g.,* BIG-IP DNS, F5 VIPRION Platform and products, F5 BIG-IP iSeries Platform and products) include the apparatus of claim 6, wherein the processor no longer receives status information from a network device removed from the cluster, wherein the processor is further configured to select one of the network devices other than the removed network device to communicate with the client. (*See, e.g.,* the corresponding analysis for claim 16 for direct and indirect infringement analysis for this claim.)

Claims	Infringement Analysis with Exemplary Infringement Evidence
communicate with the client.	
Claim 12	
12Pre. A method comprising: **12a.** designating one network device, among a plurality of network devices grouped in a cluster, as a master device, wherein the master device is assigned an internet protocol (IP) address corresponding to an IP address of an authoritative domain name server;	On information and belief, the Accused Instrumentalities (*e.g.,* BIG-IP DNS, F5 VIPRION Platform and products, F5 BIG-IP iSeries Platform and products) enable designating one network device, among a plurality of network devices grouped in a cluster, as a master device, wherein the master device is assigned an internet protocol (IP) address corresponding to an IP address of an authoritative domain name server, as shown by the following exemplary evidence above and below. For instance, F5 provides BIG-IP hardware and software products, which include software and hardware designed around application availability, access control, and security solutions. BIG-IP DNS can be deployed on any one of the available resources, namely cloud, virtual editions (VEs), or hardware devices such as VIPRION chassis, as shown below. **DEPLOY HOWEVER YOU WANT** **Cloud** F5 application services work the same way in the public and private cloud as they do in the data center. Learn more **Virtual Editions** BIG-IP VEs have the same features as those that run on F5 hardware—and you can deploy them on any hypervisor or select cloud provider. Learn more **Hardware** Both the BIG-IP family of devices and the VIPRION chassis are purpose-built, powerful hardware that F5 software runs on. Learn more https://www.f5.com/products/dns-delivery, Exhibit D

As another example, the following shows a list of BIG-IP hardware and software products that can be in use to deploy BIG-IP DNS software module.

PLATFORMS

Get the right platform for your business, whether you deploy your applications on-premises, in the cloud, or both. Hardware appliances include the new BIG-IP iSeries or our high-performing VIPRION chassis and blades. Software options are available through BIG-IP virtual edition or BIG-IP Cloud Edition.

BIG-IP iSeries >

VIPRION >

BIG-IP VE >

BIG-IP Cloud Edition >

https://www.f5.com/products/big-ip-services, Exhibit J

As an example, the BIG IP i11000 Series products support DNS load balancing are shown below.

BIG-IP i11000 Series / 1RU

The BIG-IP i11000 series of high-performance ADC appliances include dedicated crypto-hardware to enable SSL offloading and hardware-based support for elliptical curve cryptography (ECC) ciphers. The i11800 appliances offer the highest L7 request-per-sec performance in a 1RU form factor. The i11000 series features:

- dual TurboFlex FPGAs
- 18-Core Intel Xeon processor
- 256GB DDR4 RAM
- 960GB enterprise class solid-state drive (SSD)
- dual 80 Plus Platinum-certified, high-efficiency power supplies

The i11000 series supports up to 180M L4 concurrent connections and up to 32 vADC guests for consolidating application and security services, including L4 – L7 traffic management, DNS, DDoS protection, and web application firewalls.

https://www.f5.com/products/big-ip-services/iseries-appliance#large, Exhibit K

As another example, F5's BIG-IQ Centralized Management controls the F5 physical and virtual devices, as shown below.

BIG-IQ Centralized Management

F5 BIG-IQ® Centralized Management is F5's management and orchestration platform. It provides a central point of control for F5 physical and virtual devices and the app delivery and security services that run on them. BIG-IQ Centralized Management is available both as a virtual edition and an F5 appliance. It simplifies management, helps ensure compliance, and gives you the visibility and reporting you need to troubleshoot and respond to issues and security attacks.

https://www.f5.com/pdf/products/big-ip-platforms-datasheet.pdf, Exhibit G

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BIG-IQ Centralized Management manages policies, licenses, SSL certificates, images, and configurations for F5 devices and the following BIG-IP software modules:

- BIG-IP® Local Traffic Manager™ (LTM)

- BIG-IP® Application Security Manager™ (ASM)

- BIG-IP® Advanced Firewall Manager™ (AFM)

- BIG-IP® Access Policy Manager® (APM)

- F5 Secure Web Gateway Services

- BIG-IP® DNS

- F5 WebSafe™ and F5 MobileSafe® (monitoring only)

https://www.f5.com/pdf/products/big-ip-dns-datasheet.pdf, Exhibit A

Moreover, F5 advertises the BIG-IP family of products and services with infringing features (*e.g.,* DNS-load balancing device), as shown below.

BIG-IP iSeries i5800/i5800-N	BIG-IP iSeries i5600/i5600-N
BIG-IP iSeries i11800	BIG-IP iSeries i11600
BIG-IP iSeries i10800	BIG-IP iSeries i10600
BIG-IP iSeries i7800	BIG-IP iSeries i7600
BIG-IP iSeries i5800	BIG-IP iSeries i5600
BIG-IP iSeries i4800	BIG-IP iSeries i4600
BIG-IP iSeries i2800	BIG-IP iSeries i2600
BIG-IP iSeries i11800-DS	BIG-IP iSeries i11600-DS
BIG-IP iSeries i11400-DS	BIG-IP iSeries i7820-DF
BIG-IP iSeries i5820-DF	BIG-IP iSeries 10350v/10350v-N/10350v-F

https://www.f5.com/pdf/products/big-ip-platforms-datasheet.pdf, Exhibit G

Claims	Infringement Analysis with Exemplary Infringement Evidence
	As a further example, F5 BIG-IP iSeries i2600 DNS and i2800 DNS are shown below. https://www.cdw.com/product/f5-big-ip-iseries-i2600-dns-load-balancing-device/4404556, Exhibit L https://www.shi.com/Product/33018342?EventID=727c6758-6368-4353-855b-9fb22ba1b85c, Exhibit M Moreover, F5 BIG-IP DNS distributes DNS and user application requests based on business policies, data center, and cloud service conditions, user location, and application performance, as shown below.

F5® BIG-IP® DNS distributes DNS and user application requests based on business policies, data center and cloud service conditions, user location, and application performance. The BIG-IP platform delivers F5's high-performance DNS services with visibility, reporting, and analysis; hyperscales and secures DNS responses geographically to survive DDoS attacks; delivers a real-time DNSSEC solution; and ensures high availability of global applications in all cloud environments.

https://www.f5.com/pdf/products/big-ip-dns-datasheet.pdf, Exhibit A

As a further example, BIG-IP DNS along with the pools (containing virtual server) forms a cluster of devices, where BIG-IP DNS serves as the master device, as shown below.

https://www.youtube.com/watch?v=9fooqDbwJIk, Exhibit B

BIG-IP DNS includes several traffic distribution capabilities based on different load balancing methods, as exemplified below.

Advanced global load balancing

BIG-IP DNS includes the industry's most advanced traffic distribution capabilities to match the needs of any organization or globally deployed application.

- Round robin
- Global availability
- LDNS persistence
- Application availability
- Geography
- Virtual server capacity
- Least connections
- Packets per second

- Round trip time
- Hops
- Packet completion rate
- User-defined QoS
- Dynamic ratio
- LDNS
- Ratio
- Kilobytes per second

https://www.f5.com/pdf/products/big-ip-dns-datasheet.pdf, Exhibit A

Moreover, BIG-IP DNS acts as an authoritative domain name server, as exemplified below.

BIG-IP DNS listeners
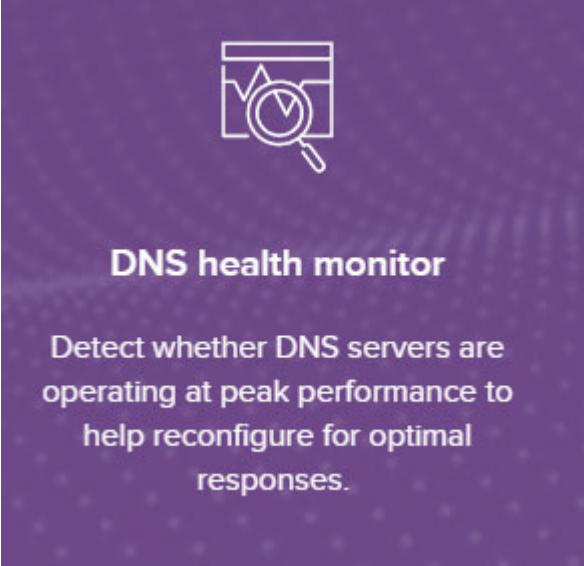
A listener is a specialized virtual server that provides DNS services on port 53 and at the IP address assigned to the listener. When a DNS query is sent to the listener, BIG-IP DNS either handles the request locally or forwards the request to the appropriate resource.

BIG-IP DNS responds to DNS queries on a per-listener basis. The number of listeners created depends on the network configuration and the destinations to which specific queries are to be sent. For example, a single BIG-IP DNS can be the primary authoritative server for one domain, while forwarding other DNS queries to a different DNS server. BIG-IP DNS always manages and responds to DNS queries for the wide IPs that are configured on the system.

https://support.f5.com/csp/article/K55502976, Exhibit C

In addition to direct infringement of this claim by F5 (including its employees), F5 also has indirectly infringed and continues to indirectly infringe by actively inducing others, including network operators and services providers, to directly infringe this claim (including limitation 1a.) by using the Accused Instrumentalities. For instance, F5 has actively induced infringement by encouraging the use of the Accused Instrumentalities (*e.g.,* BIG-IP DNS; F5 VIPRION Platform and products; F5 BIG-IP iSeries Platform and products; BIG-IQ Centralized Management) in ways that infringe this claim. F5 knew or should have known that such encouragement would induce infringement. Such induced infringement has occurred at least since F5 became aware of the Asserted Patent. F5 has had knowledge of the Asserted Patent at least since the date when a complaint was filed in the Eastern District of Virginia. F5 has taken active steps

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Claims	Infringement Analysis with Exemplary Infringement Evidence
	with the specific intent to encourage and cause others to use each Accused Instrumentality in ways that infringe this claim. Such active steps by F5 with specific intent to induce infringement have included, among other things, advertising, promoting, marketing, making available for use, offering to sell, and/or selling the Accused Instrumentalities to others; encouraging and influencing other companies to import, offer to sell, and/or sell the Accused Instrumentalities; and directing and instructing others to use the Accused Instrumentalities in infringing ways. F5 has performed the aforementioned active steps with the knowledge of the Asserted Patent at least since the date when a complaint was filed in the Eastern District of Virginia. F5 has known or should have known that the acts it has induced constitute infringement because, for instance, it has been aware that network operators and service providers that purchase the Accused Instrumentalities will use them, resulting in direct infringement. (*See, e.g.,* https://www.f5.com/pdf/products/big-ip-dns-datasheet.pdf, Exhibit A; https://www.youtube.com/watch?v=9fooqDbwJIk, Exhibit B; https://www.f5.com/products/dns-delivery, Exhibit D; https://www.youtube.com/watch?v=UufRG2eeFmQ, Exhibit F; https://www.f5.com/pdf/products/big-ip-platforms-datasheet.pdf, Exhibit G; https://www.f5.com/products/big-ip-services, Exhibit J; https://www.f5.com/products/big-ip-services/iseries-appliance#large, Exhibit K.) Further, F5 has indirectly infringed and continues to indirectly infringe this claim by contributing to infringement of this claim. For instance, components of the Accused Instrumentalities (*e.g.,* BIG-IP DNS; F5 VIPRION Platform and products; F5 BIG-IP iSeries Platform and products; BIG-IQ Centralized Management) are known by F5 to be especially made or especially adapted for use to infringe this claim (including limitation 1a.), and each is not a staple article or commodity of commerce suitable for substantial non-infringing uses. F5 contributes to the infringement of this claim by making available for use, offering for sale, selling, and/or importing the components of the instrumentalities, to third parties, who, for example, use such components to practice this claim. (*See, e.g.,* https://www.f5.com/pdf/products/big-ip-dns-datasheet.pdf, Exhibit A; https://www.youtube.com/watch?v=9fooqDbwJIk, Exhibit B; https://www.f5.com/products/dns-delivery, Exhibit D; https://www.youtube.com/watch?v=UufRG2eeFmQ, Exhibit F; https://www.f5.com/pdf/products/big-ip-platforms-datasheet.pdf, Exhibit G; https://www.f5.com/products/big-ip-services, Exhibit J; https://www.f5.com/products/big-ip-services/iseries-appliance#large, Exhibit K.) Moreover, F5 has had notice of the Asserted Patent at least as of the filing date of a complaint in the Eastern District of Virginia.
12b. communicating status information from each network device to at	On information and belief, the Accused Instrumentalities (*e.g.,* BIG-IP DNS, F5 VIPRION Platform and products, F5 BIG-IP iSeries Platform and products) enable communicating status information from each network device to at least the master device in the cluster, as shown by the following exemplary evidence above and below.

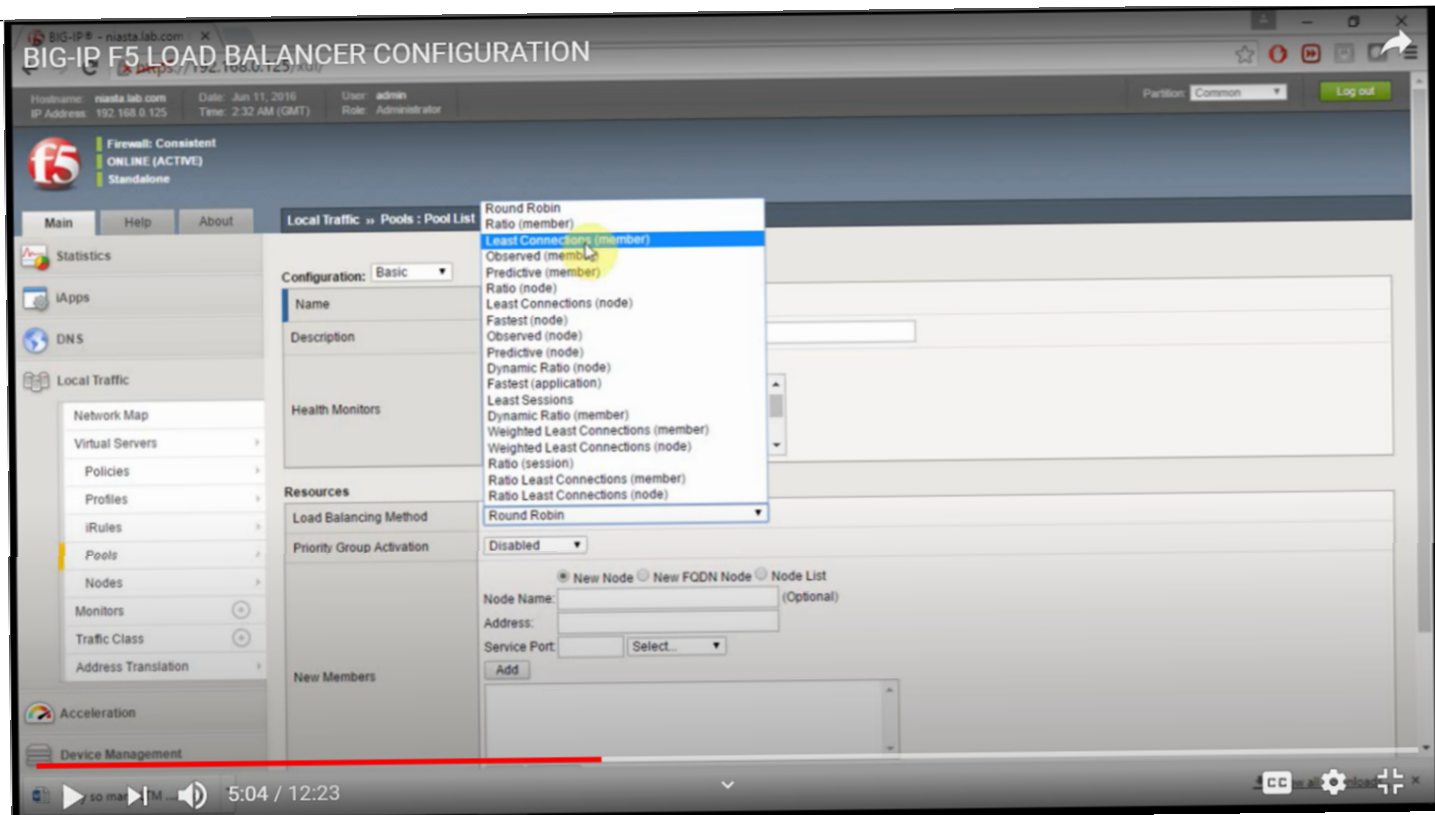| Claims	Infringement Analysis with Exemplary Infringement Evidence
least the master device in the cluster;	For instance, F5 BIG-IP DNS monitors the health of DNS servers to reconfigure for optimal responses, as shown below. https://www.f5.com/products/dns-delivery, Exhibit D Further, as shown below, BIG-IP DNS provides tiered global server load balancing. BIG-IP DNS distributes DNS name resolution requests, first to the best available pool, and then to the best available virtual server within that pool. BIG-IP DNS selects the best available resource using either a static or a dynamic load balancing method. Using a dynamic load balancing method, BIG-IP DNS selects a resource based on current performance metrics collected by the big3d agents running in each data center. In this way, the BIG-IP DNS receives status information from each network device (virtual servers).

About global server load balancing

BIG-IP® DNS provides tiered global server load balancing (GSLB). BIG-IP DNS distributes DNS name resolution requests, first to the best available pool in a wide IP, and then to the best available virtual server within that pool. BIG-IP DNS selects the best available resource using either a static or a dynamic load balancing method. Using a static load balancing method, BIG-IP DNS selects a resource based on a pre-defined pattern. Using a dynamic load balancing method, BIG-IP DNS selects a resource based on current performance metrics collected by the big3d agents running in each data center.

https://techdocs.f5.com/content/kb/en-us/products/big-ip-dns/manuals/product/bigip-dns-load-balancing-12-1-0/_jcr_content/pdfAttach/download/file.res/BIG-IP_DNS__Load_Balancing.pdf, Exhibit E

This table describes the dynamic load balancing methods available in BIG-IP® DNS.

Name	Description	Wide IP load balancing	Preferred method	Alternate method	Fallback method
Completion Rate	BIG-IP® DNS distributes DNS name resolution requests to the virtual server that currently maintains the least number of dropped or timed-out packets during a transaction between a data center and the client's LDNS.	No	Yes	No	Yes
CPU	BIG-IP DNS distributes DNS name resolution requests to the virtual server that currently has the most CPU processing time available.	No	Yes	No	Yes

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Claims	Infringement Analysis with Exemplary Infringement Evidence

Name	Description	Wide IP load balancing	Preferred method	Alternate method	Fallback method
	BIG-IP DNS uses the traceroute utility to track the number of router hops between a client's LDNS and each data center.				
Kilobytes/Second	BIG-IP DNS distributes DNS name resolution requests to the virtual server that is currently processing the fewest number of kilobytes per second. Use **Kilobytes/Second** only with virtual servers for which BIG-IP DNS can collect the kilobytes per second metric.	No	Yes	No	Yes
Least Connections	BIG-IP DNS distributes DNS name resolution requests to virtual servers on BIG-IP® Local Traffic Manager™ (LTM®) that currently hosts the fewest connections. Use **Least Connections** only with LTM servers.	No	Yes	No	Yes
Virtual Server Score	BIG-IP DNS distributes DNS name resolution requests to virtual servers on LTM based on a user-defined ranking. Use **Virtual Server Score** only with LTM systems on which you have assigned scores to each virtual server.	No	Yes	Yes	Yes
Virtual Server Capacity	BIG-IP DNS distributes DNS name resolution requests to virtual servers in a list that are weighted by the number of available virtual servers in the pool. Use **Virtual Server Capacity** for load balancing virtual servers managed by LTM Systems. BIG-IP DNS selects a virtual server that has the most available (UP) members. When selecting a virtual server from a wide IP pool and two or more virtual servers result in equal scores, BIG-IP DNS will return one of the equal scored virtual servers randomly.	No	Yes	Yes	Yes

https://techdocs.f5.com/content/kb/en-us/products/big-ip-dns/manuals/product/bigip-dns-load-balancing-12-1-0/_jcr_content/pdfAttach/download/file.res/BIG-IP_DNS__Load_Balancing.pdf, Exhibit E

As a further example, load balancing methods from the available methods can be applied within a pool of virtual servers, as shown below.

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https://www.youtube.com/watch?v=UufRG2eeFmQ, Exhibit F

Additionally, F5 also has indirectly infringed and continues to indirectly infringe by inducing others, including network operators and services providers, to perform this step. For instance, F5 has actively induced infringement by encouraging the use of the Accused Instrumentalities to perform this step. F5 knew or should have known that such encouragement would induce infringement. Such induced infringement has occurred at least since F5 became aware of the Asserted Patent. F5 has had knowledge of the Asserted Patent at least since the date when a complaint was filed in the Eastern District of Virginia. Such steps by F5 to induce infringement have included F5's advertising, promoting, marketing, making available for use, offering to sell, and/or selling the Accused Instrumentalities to others, and directing and instructing them to use the Accused Instrumentalities to perform this step. Further, by providing the Accused Instrumentalities (*e.g.,* BIG-IP DNS; F5 VIPRION Platform and products; F5 BIG-IP iSeries Platform and products;
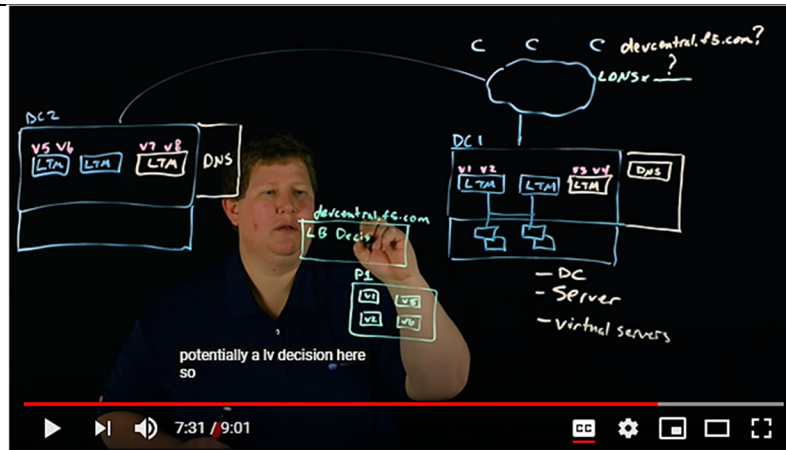
Claims	Infringement Analysis with Exemplary Infringement Evidence
	BIG-IQ Centralized Management) to consumers, F5 has induced others to perform this step with the knowledge that the acts it has induced constitute infringement because, for instance, F5 has been aware that network operators and services providers will use them, resulting in direct infringement. (*See, e.g.,* https://www.f5.com/pdf/products/big-ip-dns-datasheet.pdf, Exhibit A; https://www.youtube.com/watch?v=9fooqDbwJIk, Exhibit B; https://www.f5.com/products/dns-delivery, Exhibit D; https://www.youtube.com/watch?v=UufRG2eeFmQ, Exhibit F; https://www.f5.com/pdf/products/big-ip-platforms-datasheet.pdf, Exhibit G; https://www.f5.com/products/big-ip-services, Exhibit J; https://www.f5.com/products/big-ip-services/iseries-appliance#large, Exhibit K.) Further, F5 has indirectly infringed and continues to indirectly infringe the claim by contributing to performance of this step. For instance, components of each Accused Instrumentality are known by F5 to be especially made or especially adapted for use in performing this step, and each is not a staple article or commodity of commerce suitable for substantial non-infringing uses. F5 contributes to the performance of this step by making available for use, offering for sale, selling, and/or importing components of the Accused Instrumentalities (*e.g.,* BIG-IP DNS; F5 VIPRION Platform and products; F5 BIG-IP iSeries Platform and products; BIG-IQ Centralized Management) to third parties, who, for example, use such components to perform this step. (*See, e.g.,* https://www.f5.com/pdf/products/big-ip-dns-datasheet.pdf, Exhibit A; https://www.youtube.com/watch?v=9fooqDbwJIk, Exhibit B; https://www.f5.com/products/dns-delivery, Exhibit D; https://www.youtube.com/watch?v=UufRG2eeFmQ, Exhibit F; https://www.f5.com/pdf/products/big-ip-platforms-datasheet.pdf, Exhibit G; https://www.f5.com/products/big-ip-services, Exhibit J; https://www.f5.com/products/big-ip-services/iseries-appliance#large, Exhibit K.) Moreover, F5 has had notice of the Asserted Patent at least as of the filing date of a complaint in the Eastern District of Virginia.
12c. receiving a domain name service (DNS) query based upon a client request;	On information and belief, the Accused Instrumentalities (*e.g.,* BIG-IP DNS, F5 VIPRION Platform and products, F5 BIG-IP iSeries Platform and products) enable receiving a domain name service (DNS) query based upon a client request, as shown by the following exemplary evidence above and below. As exemplified below, BIG-IP DNS provides tiered global server load balancing. BIG-IP DNS distributes DNS name resolution requests (received domain name service (DNS) query based upon a client request), first to the best available pool, and then to the best available virtual server within that pool. BIG-IP DNS selects the best available resource using either a static or a dynamic load balancing method. Using a dynamic load balancing method, BIG-IP DNS selects a resource based on current performance metrics collected by the big3d agents running in each data center. In this way, the BIG-IP DNS receives status information from each network device (virtual servers).

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Claims	Infringement Analysis with Exemplary Infringement Evidence
	About global server load balancing BIG-IP® DNS provides tiered global server load balancing (GSLB). BIG-IP DNS distributes DNS name resolution requests, first to the best available pool in a wide IP, and then to the best available virtual server within that pool. BIG-IP DNS selects the best available resource using either a static or a dynamic load balancing method. Using a static load balancing method, BIG-IP DNS selects a resource based on a pre-defined pattern. Using a dynamic load balancing method, BIG-IP DNS selects a resource based on current performance metrics collected by the big3d agents running in each data center. https://techdocs.f5.com/content/kb/en-us/products/big-ip-dns/manuals/product/bigip-dns-load-balancing-12-1-0/_jcr_content/pdfAttach/download/file.res/BIG-IP_DNS__Load_Balancing.pdf, Exhibit E Additionally, F5 also has indirectly infringed and continues to indirectly infringe by inducing others, including network operators and services providers, to perform this step. For instance, F5 has actively induced infringement by encouraging the use of the Accused Instrumentalities to perform this step. F5 knew or should have known that such encouragement would induce infringement. Such induced infringement has occurred at least since F5 became aware of the Asserted Patent. F5 has had knowledge of the Asserted Patent at least since the date when a complaint was filed in the Eastern District of Virginia. Such steps by F5 to induce infringement have included F5's advertising, promoting, marketing, making available for use, offering to sell, and/or selling the Accused Instrumentalities to others, and directing and instructing them to use the Accused Instrumentalities to perform this step. Further, by providing the Accused Instrumentalities (*e.g.,* BIG-IP DNS; F5 VIPRION Platform and products; F5 BIG-IP iSeries Platform and products; BIG-IQ Centralized Management) to consumers, F5 has induced others to perform this step with the knowledge that the acts it has induced constitute infringement because, for instance, F5 has been aware that network operators and services providers will use them, resulting in direct infringement. (*See, e.g.,* https://www.f5.com/pdf/products/big-ip-dns-datasheet.pdf, Exhibit A; https://www.youtube.com/watch?v=9fooqDbwJIk, Exhibit B; https://www.f5.com/products/dns-delivery, Exhibit D; https://www.youtube.com/watch?v=UufRG2eeFmQ, Exhibit F; https://www.f5.com/pdf/products/big-ip-platforms-datasheet.pdf, Exhibit G; https://www.f5.com/products/big-ip-services, Exhibit J; https://www.f5.com/products/big-ip-services/iseries-appliance#large, Exhibit K.) Further, F5 has indirectly infringed and continues to indirectly infringe the claim by contributing to performance of this step. For instance, components of each Accused Instrumentality are known by F5 to be especially made or especially adapted for use in performing this step, and each is not a staple article or commodity of commerce suitable for substantial non-infringing uses. F5 contributes to the performance of this step by making available for use, offering for

Claims	Infringement Analysis with Exemplary Infringement Evidence
	sale, selling, and/or importing components of the Accused Instrumentalities (*e.g.,* BIG-IP DNS; F5 VIPRION Platform and products; F5 BIG-IP iSeries Platform and products; BIG-IQ Centralized Management) to third parties, who, for example, use such components to perform this step. (*See, e.g.,* https://www.f5.com/pdf/products/big-ip-dns-datasheet.pdf, Exhibit A; https://www.youtube.com/watch?v=9fooqDbwJIk, Exhibit B; https://www.f5.com/products/dns-delivery, Exhibit D; https://www.youtube.com/watch?v=UufRG2eeFmQ, Exhibit F; https://www.f5.com/pdf/products/big-ip-platforms-datasheet.pdf, Exhibit G; https://www.f5.com/products/big-ip-services, Exhibit J; https://www.f5.com/products/big-ip-services/iseries-appliance#large, Exhibit K.) Moreover, F5 has had notice of the Asserted Patent at least as of the filing date of a complaint in the Eastern District of Virginia.
12d. selecting one of the network devices to communicate with the client, based on the status information of each of the network devices; and	On information and belief, the Accused Instrumentalities (*e.g.,* BIG-IP DNS, F5 VIPRION Platform and products, F5 BIG-IP iSeries Platform and products) enable selecting one of the network devices to communicate with the client, based on the status information of each of the network devices, as shown by the following exemplary evidence above and below. For example, F5 BIG-IP DNS monitors the health of DNS servers to reconfigure for optimal responses, as shown below. https://www.f5.com/products/dns-delivery, Exhibit D

Claims	Infringement Analysis with Exemplary Infringement Evidence
	As exemplified below, BIG-IP DNS provides tiered global server load balancing. BIG-IP DNS distributes DNS name resolution requests, first to the best available pool, and then to the best available virtual server within that pool. BIG-IP DNS selects the best available resource using either a static or a dynamic load balancing method. Using a dynamic load balancing method, BIG-IP DNS selects a resource based on current performance metrics collected by the big3d agents running in each data center (i.e., selecting one of the network devices to communicate with the client, based on the status information of each of the network devices). In this way, the BIG-IP DNS receives status information from each network device (virtual servers). **About global server load balancing** BIG-IP® DNS provides tiered global server load balancing (GSLB). BIG-IP DNS distributes DNS name resolution requests, first to the best available pool in a wide IP, and then to the best available virtual server within that pool. BIG-IP DNS selects the best available resource using either a static or a dynamic load balancing method. Using a static load balancing method, BIG-IP DNS selects a resource based on a pre-defined pattern. Using a dynamic load balancing method, BIG-IP DNS selects a resource based on current performance metrics collected by the big3d agents running in each data center. https://techdocs.f5.com/content/kb/en-us/products/big-ip-dns/manuals/product/bigip-dns-load-balancing-12-1-0/_jcr_content/pdfAttach/download/file.res/BIG-IP_DNS__Load_Balancing.pdf, Exhibit E This table describes the dynamic load balancing methods available in BIG-IP® DNS. _(table below)_

This table describes the dynamic load balancing methods available in BIG-IP® DNS.

Name	Description	Wide IP load balancing	Preferred method	Alternate method	Fallback method
Completion Rate	BIG-IP® DNS distributes DNS name resolution requests to the virtual server that currently maintains the least number of dropped or timed-out packets during a transaction between a data center and the client's LDNS.	No	Yes	No	Yes
CPU	BIG-IP DNS distributes DNS name resolution requests to the virtual server that currently has the most CPU processing time available.	No	Yes	No	Yes

Claims	Infringement Analysis with Exemplary Infringement Evidence

Name	Description	Wide IP load balancing	Preferred method	Alternate method	Fallback method
	BIG-IP DNS uses the traceroute utility to track the number of router hops between a client's LDNS and each data center.				
Kilobytes/Second	BIG-IP DNS distributes DNS name resolution requests to the virtual server that is currently processing the fewest number of kilobytes per second. Use **Kilobytes/Second** only with virtual servers for which BIG-IP DNS can collect the kilobytes per second metric.	No	Yes	No	Yes
Least Connections	BIG-IP DNS distributes DNS name resolution requests to virtual servers on BIG-IP® Local Traffic Manager™ (LTM®) that currently hosts the fewest connections. Use **Least Connections** only with LTM servers.	No	Yes	No	Yes
Virtual Server Score	BIG-IP DNS distributes DNS name resolution requests to virtual servers on LTM based on a user-defined ranking. Use **Virtual Server Score** only with LTM systems on which you have assigned scores to each virtual server.	No	Yes	Yes	Yes
Virtual Server Capacity	BIG-IP DNS distributes DNS name resolution requests to virtual servers in a list that are weighted by the number of available virtual servers in the pool. Use **Virtual Server Capacity** for load balancing virtual servers managed by LTM Systems. BIG-IP DNS selects a virtual server that has the most available (UP) members. When selecting a virtual server from a wide IP pool and two or more virtual servers result in equal scores, BIG-IP DNS will return one of the equal scored virtual servers randomly.	No	Yes	Yes	Yes

https://techdocs.f5.com/content/kb/en-us/products/big-ip-dns/manuals/product/bigip-dns-load-balancing-12-1-0/_jcr_content/pdfAttach/download/file.res/BIG-IP_DNS__Load_Balancing.pdf, Exhibit E

https://www.youtube.com/watch?v=9fooqDbwJIk, Exhibit B

Additionally, F5 also has indirectly infringed and continues to indirectly infringe by inducing others, including network operators and services providers, to perform this step. For instance, F5 has actively induced infringement by encouraging the use of the Accused Instrumentalities to perform this step. F5 knew or should have known that such encouragement would induce infringement. Such induced infringement has occurred at least since F5 became aware of the Asserted Patent. F5 has had knowledge of the Asserted Patent at least since the date when a complaint was filed in the Eastern District of Virginia. Such steps by F5 to induce infringement have included F5's advertising, promoting, marketing, making available for use, offering to sell, and/or selling the Accused Instrumentalities to others, and directing and instructing them to use the Accused Instrumentalities to perform this step. Further, by providing the Accused Instrumentalities (*e.g.,* BIG-IP DNS; F5 VIPRION Platform and products; F5 BIG-IP iSeries Platform and products; BIG-IQ Centralized Management) to consumers, F5 has induced others to perform this step with the knowledge that the acts it has induced constitute infringement because, for instance, F5 has been aware that network operators and services providers will use them, resulting in direct infringement. (*See, e.g.,* https://www.f5.com/pdf/products/big-ip-dns-datasheet.pdf, Exhibit A; https://www.youtube.com/watch?v=9fooqDbwJIk, Exhibit B; https://www.f5.com/products/dns-delivery, Exhibit D; https://www.youtube.com/watch?v=UufRG2eeFmQ, Exhibit F; https://www.f5.com/pdf/products/big-ip-platforms-datasheet.pdf, Exhibit G; https://www.f5.com/products/big-ip-services, Exhibit J; https://www.f5.com/products/big-ip-services/iseries-appliance#large, Exhibit K.)

Further, F5 has indirectly infringed and continues to indirectly infringe the claim by contributing to performance of this step. For instance, components of each Accused Instrumentality are known by F5 to be especially made or especially

Claims	Infringement Analysis with Exemplary Infringement Evidence
	adapted for use in performing this step, and each is not a staple article or commodity of commerce suitable for substantial non-infringing uses. F5 contributes to the performance of this step by making available for use, offering for sale, selling, and/or importing components of the Accused Instrumentalities (*e.g.,* BIG-IP DNS; F5 VIPRION Platform and products; F5 BIG-IP iSeries Platform and products; BIG-IQ Centralized Management) to third parties, who, for example, use such components to perform this step. (*See, e.g.,* https://www.f5.com/pdf/products/big-ip-dns-datasheet.pdf, Exhibit A; https://www.youtube.com/watch?v=9fooqDbwJIk, Exhibit B; https://www.f5.com/products/dns-delivery, Exhibit D; https://www.youtube.com/watch?v=UufRG2eeFmQ, Exhibit F; https://www.f5.com/pdf/products/big-ip-platforms-datasheet.pdf, Exhibit G; https://www.f5.com/products/big-ip-services, Exhibit J; https://www.f5.com/products/big-ip-services/iseries-appliance#large, Exhibit K.) Moreover, F5 has had notice of the Asserted Patent at least as of the filing date of a complaint in the Eastern District of Virginia.
12e. returning a device IP address of the selected one of the network devices in response to the DNS query.	On information and belief, the Accused Instrumentalities (*e.g.,* BIG-IP DNS, F5 VIPRION Platform and products, F5 BIG-IP iSeries Platform and products) enable returning a device IP address of the selected one of the network devices in response to the DNS query, as shown by the following exemplary evidence above and below. As shown below, by using a dynamic load balancing method, BIG-IP DNS selects a resource based on current performance metrics collected by the big3d agents running in each data center. In this way, a device IP address of the selected resource (selected virtual server in the selected pool) is returned to the client. **About global server load balancing** BIG-IP® DNS provides tiered global server load balancing (GSLB). BIG-IP DNS distributes DNS name resolution requests, first to the best available pool in a wide IP, and then to the best available virtual server within that pool. BIG-IP DNS selects the best available resource using either a static or a dynamic load balancing method. Using a static load balancing method, BIG-IP DNS selects a resource based on a pre-defined pattern. Using a dynamic load balancing method, BIG-IP DNS selects a resource based on current performance metrics collected by the `big3d` agents running in each data center. https://techdocs.f5.com/content/kb/en-us/products/big-ip-dns/manuals/product/bigip-dns-load-balancing-12-1-0/_jcr_content/pdfAttach/download/file.res/BIG-IP_DNS__Load_Balancing.pdf, Exhibit E

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BIG-IP DNS Load Balancing Introduction

https://www.youtube.com/watch?v=9fooqDbwJIk, Exhibit B

Further, by returning the IP address of a virtual server in response to a DNS name resolution request, a device IP address of the selected one of the network devices in response to the DNS query is returned, as shown below.

About pool-level load balancing

BIG-IP® DNS provides three tiers of pool-level load balancing to identify a virtual server to handle a DNS name resolution request.

Preferred Load Balancing Method

The first load balancing method BIG-IP DNS uses to return the IP address of a virtual server in response to a DNS name resolution request. The preferred method can be either static or dynamic.

https://techdocs.f5.com/content/kb/en-us/products/big-ip-dns/manuals/product/bigip-dns-load-balancing-12-1-0/_jcr_content/pdfAttach/download/file.res/BIG-IP_DNS__Load_Balancing.pdf, Exhibit E

Claims	Infringement Analysis with Exemplary Infringement Evidence
	Additionally, F5 also has indirectly infringed and continues to indirectly infringe by inducing others, including network operators and services providers, to perform this step. For instance, F5 has actively induced infringement by encouraging the use of the Accused Instrumentalities to perform this step. F5 knew or should have known that such encouragement would induce infringement. Such induced infringement has occurred at least since F5 became aware of the Asserted Patent. F5 has had knowledge of the Asserted Patent at least since the date when a complaint was filed in the Eastern District of Virginia. Such steps by F5 to induce infringement have included F5's advertising, promoting, marketing, making available for use, offering to sell, and/or selling the Accused Instrumentalities to others, and directing and instructing them to use the Accused Instrumentalities to perform this step. Further, by providing the Accused Instrumentalities (*e.g.,* BIG-IP DNS; F5 VIPRION Platform and products; F5 BIG-IP iSeries Platform and products; BIG-IQ Centralized Management) to consumers, F5 has induced others to perform this step with the knowledge that the acts it has induced constitute infringement because, for instance, F5 has been aware that network operators and services providers will use them, resulting in direct infringement. (*See, e.g.,* https://www.f5.com/pdf/products/big-ip-dns-datasheet.pdf, Exhibit A; https://www.youtube.com/watch?v=9fooqDbwJIk, Exhibit B; https://www.f5.com/products/dns-delivery, Exhibit D; https://www.youtube.com/watch?v=UufRG2eeFmQ, Exhibit F; https://www.f5.com/pdf/products/big-ip-platforms-datasheet.pdf, Exhibit G; https://www.f5.com/products/big-ip-services, Exhibit J; https://www.f5.com/products/big-ip-services/iseries-appliance#large, Exhibit K.)

Further, F5 has indirectly infringed and continues to indirectly infringe the claim by contributing to performance of this step. For instance, components of each Accused Instrumentality are known by F5 to be especially made or especially adapted for use in performing this step, and each is not a staple article or commodity of commerce suitable for substantial non-infringing uses. F5 contributes to the performance of this step by making available for use, offering for sale, selling, and/or importing components of the Accused Instrumentalities (*e.g.,* BIG-IP DNS; F5 VIPRION Platform and products; F5 BIG-IP iSeries Platform and products; BIG-IQ Centralized Management) to third parties, who, for example, use such components to perform this step. (*See, e.g.,* https://www.f5.com/pdf/products/big-ip-dns-datasheet.pdf, Exhibit A; https://www.youtube.com/watch?v=9fooqDbwJIk, Exhibit B; https://www.f5.com/products/dns-delivery, Exhibit D; https://www.youtube.com/watch?v=UufRG2eeFmQ, Exhibit F; https://www.f5.com/pdf/products/big-ip-platforms-datasheet.pdf, Exhibit G; https://www.f5.com/products/big-ip-services, Exhibit J; https://www.f5.com/products/big-ip-services/iseries-appliance#large, Exhibit K.) Moreover, F5 has had notice of the Asserted Patent at least as of the filing date of a complaint in the Eastern District of Virginia. |
| | |
| **Claim 13** | |

Claims	Infringement Analysis with Exemplary Infringement Evidence
The method of claim 12, wherein the status information is selected from the group comprising network device presence, load percentage, number of active connections, and device IP address.	On information and belief, the Accused Instrumentalities (*e.g.,* BIG-IP DNS, F5 VIPRION Platform and products, F5 BIG-IP iSeries Platform and products) enable the practice of the method of claim 12, wherein the status information is selected from the group comprising network device presence, load percentage, number of active connections, and device IP address, as shown by the following exemplary evidence above and below. For instance, BIG-IP® DNS performs load balancing based on DNS name resolution requests to allocate resources based on availability (network device presence). When a resource meets one or more pre-defined requirements, then it becomes available. There are three methods used by the BIG-IP DNS to determine resource availability: a dependency on another resource, limit settings, or a set of values returned by a monitor, as exemplified below. BIG-IP® DNS load balances DNS name resolution requests to resources based on availability. A resource is available when it meets one or more pre-defined requirements. BIG-IP DNS uses three methods to determine resource availability: a dependency on another resource, limit settings, or a set of values returned by a monitor. When BIG-IP DNS considers a resource unavailable, BIG-IP DNS attempts to select the next resource based on the current load balancing method. https://techdocs.f5.com/content/kb/en-us/products/big-ip-dns/manuals/product/bigip-dns-load-balancing-12-1-0/_jcr_content/pdfAttach/download/file.res/BIG-IP_DNS__Load_Balancing.pdf, Exhibit E Further, the following table describes limit settings for resource availability. A limit setting is a threshold (load percentage) for a statistic associated with a system. The limit setting parameters consists of maximum allowable throughput in bits per second, packets, current connections (active connection), etc. BIG-IP DNS can also use the limit settings method to determine resource availability and resource is available when it meets one or more pre-defined requirements, as shown below.

Limit settings for resource availability

This table describes the limit settings BIG-IP® DNS uses to determine resource availability. A *limit setting* is a threshold for a statistic associated with a system.

Limit setting	Server-level	Pool-level	Virtual Server-level	BIG-IP Systems	Other Load Balancers	Hosts
Maximum allowable throughput in bits per second	Y	Y	Y	Y	Y	Y
Packets	Y	Y	Y	Y	Y	Y
Current connections	Y	Y	Y	Y	Y	Y
Connection	N	N	Y	Y	N	N
CPU	Y	N	N	N	Y	Y
Memory	Y	N	N	N	Y	Y

https://techdocs.f5.com/content/kb/en-us/products/big-ip-dns/manuals/product/bigip-dns-load-balancing-12-1-0/_jcr_content/pdfAttach/download/file.res/BIG-IP_DNS__Load_Balancing.pdf, Exhibit E

As shown in further example below, BIG-IP DNS selects pools based on the order in which they are listed in a wide IP (*e.g.*, contains the list of IP addresses).

About wide IP-level load balancing

BIG-IP® DNS selects pools based on the order in which they are listed in a wide IP. When you organize pools in conjunction with the Global Availability, Ratio, Round Robin, and Topology load balancing methods, consider the order in which the pools are listed in the Pool List.

> The Global Availability load balancing method instructs BIG-IP DNS to select the first pool in the wide IP pool list until it becomes unavailable, and then to select the next pool in the list until the first pool becomes available again. This ensures that the most robust pool receives DNS name resolution requests, while the other pools act as backups in case the primary pool becomes unavailable.

https://techdocs.f5.com/content/kb/en-us/products/big-ip-dns/manuals/product/bigip-dns-load-balancing-12-1-0/_jcr_content/pdfAttach/download/file.res/BIG-IP_DNS__Load_Balancing.pdf, Exhibit E

Claims	Infringement Analysis with Exemplary Infringement Evidence
	In addition to direct infringement of this claim by F5 (including its employees), F5 also has indirectly infringed and continues to indirectly infringe by actively inducing others, including network operators and services providers, to directly infringe this claim by using the Accused Instrumentalities. For instance, F5 has actively induced infringement by encouraging the use of the Accused Instrumentalities (*e.g.,* BIG-IP DNS; F5 VIPRION Platform and products; F5 BIG-IP iSeries Platform and products; BIG-IQ Centralized Management) in ways that infringe this claim. F5 knew or should have known that such encouragement would induce infringement. Such induced infringement has occurred at least since F5 became aware of the Asserted Patent. F5 has had knowledge of the Asserted Patent at least since the date when a complaint was filed in the Eastern District of Virginia. F5 has taken active steps with the specific intent to encourage and cause others to use each Accused Instrumentality in ways that infringe this claim. Such active steps by F5 with specific intent to induce infringement have included, among other things, advertising, promoting, marketing, making available for use, offering to sell, and/or selling the Accused Instrumentalities to others; encouraging and influencing other companies to import, offer to sell, and/or sell the Accused Instrumentalities; and directing and instructing others to use the Accused Instrumentalities in infringing ways. F5 has performed the aforementioned active steps with the knowledge of the Asserted Patent at least since the date when a complaint was filed in the Eastern District of Virginia. F5 has known or should have known that the acts it has induced constitute infringement because, for instance, it has been aware that network operators and service providers that purchase the Accused Instrumentalities will use them, resulting in direct infringement. (*See, e.g.,* https://www.f5.com/pdf/products/big-ip-dns-datasheet.pdf, Exhibit A; https://www.youtube.com/watch?v=9fooqDbwJIk, Exhibit B; https://www.f5.com/products/dns-delivery, Exhibit D; https://www.youtube.com/watch?v=UufRG2eeFmQ, Exhibit F; https://www.f5.com/pdf/products/big-ip-platforms-datasheet.pdf, Exhibit G; https://www.f5.com/products/big-ip-services, Exhibit J; https://www.f5.com/products/big-ip-services/iseries-appliance#large, Exhibit K.) Further, F5 has indirectly infringed and continues to indirectly infringe this claim by contributing to infringement of this claim. For instance, components of the Accused Instrumentalities (*e.g.,* BIG-IP DNS; F5 VIPRION Platform and products; F5 BIG-IP iSeries Platform and products; BIG-IQ Centralized Management) are known by F5 to be especially made or especially adapted for use to infringe this claim, and each is not a staple article or commodity of commerce suitable for substantial non-infringing uses. F5 contributes to the infringement of this claim by making available for use, offering for sale, selling, and/or importing the components of the instrumentalities, to third parties, who, for example, use such components to practice this claim. (*See, e.g.,* https://www.f5.com/pdf/products/big-ip-dns-datasheet.pdf, Exhibit A; https://www.youtube.com/watch?v=9fooqDbwJIk, Exhibit B; https://www.f5.com/products/dns-delivery, Exhibit D; https://www.youtube.com/watch?v=UufRG2eeFmQ, Exhibit F; https://www.f5.com/pdf/products/big-ip-platforms-datasheet.pdf, Exhibit G; https://www.f5.com/products/big-ip-services, Exhibit J;

Claims	Infringement Analysis with Exemplary Infringement Evidence
	https://www.f5.com/products/big-ip-services/iseries-appliance#large, Exhibit K.) Moreover, F5 has had notice of the Asserted Patent at least as of the filing date of a complaint in the Eastern District of Virginia.
Claim 14	
The method of claim 12, wherein the one of the network devices is selected according to a predefined load balancing algorithm.	On information and belief, the Accused Instrumentalities (*e.g.,* BIG-IP DNS, F5 VIPRION Platform and products, F5 BIG-IP iSeries Platform and products) enable the practice of the method of claim 12, wherein the one of the network devices is selected according to a predefined load balancing algorithm, as shown by the following exemplary evidence above and below. For instance, the accused product can monitor the availability and performance of global resources and uses that information to manage network traffic patterns. It uses load balancing algorithms, topology-based routing, etc., to control and distribute traffic, as exemplified below. BIG-IP® DNS (formerly GTM™) is a system that monitors the availability and performance of global resources and uses that information to manage network traffic patterns. BIG-IP DNS uses load balancing algorithms, topology-based routing, and iRules® to control and distribute traffic according to specific policies. https://techdocs.f5.com/content/kb/en-us/products/big-ip-dns/manuals/product/bigip-dns-load-balancing-12-1-0/_jcr_content/pdfAttach/download/file.res/BIG-IP_DNS__Load_Balancing.pdf, Exhibit E As show in another example below, BIG-IP DNS includes several traffic distribution capabilities based on different load balancing methods.

Advanced global load balancing

BIG-IP DNS includes the industry's most advanced traffic distribution capabilities to match the needs of any organization or globally deployed application.

- Round robin
- Global availability
- LDNS persistence
- Application availability
- Geography
- Virtual server capacity
- Least connections
- Packets per second

- Round trip time
- Hops
- Packet completion rate
- User-defined QoS
- Dynamic ratio
- LDNS
- Ratio
- Kilobytes per second

https://www.f5.com/pdf/products/big-ip-dns-datasheet.pdf, Exhibit A

In addition to direct infringement of this claim by F5 (including its employees), F5 also has indirectly infringed and continues to indirectly infringe by actively inducing others, including network operators and services providers, to directly infringe this claim by using the Accused Instrumentalities. For instance, F5 has actively induced infringement by encouraging the use of the Accused Instrumentalities (*e.g.,* BIG-IP DNS; F5 VIPRION Platform and products; F5 BIG-IP iSeries Platform and products; BIG-IQ Centralized Management) in ways that infringe this claim. F5 knew or should have known that such encouragement would induce infringement. Such induced infringement has occurred at least since F5 became aware of the Asserted Patent. F5 has had knowledge of the Asserted Patent at least since the date when a complaint was filed in the Eastern District of Virginia. F5 has taken active steps with the specific intent to encourage and cause others to use each Accused Instrumentality in ways that infringe this claim. Such active steps by F5 with specific intent to induce infringement have included, among other things, advertising, promoting, marketing, making available for use, offering to sell, and/or selling the Accused Instrumentalities to others; encouraging and influencing other companies to import, offer to sell, and/or sell the Accused Instrumentalities; and directing and instructing others to use the Accused Instrumentalities in infringing ways. F5 has performed the aforementioned active steps with the knowledge of the Asserted Patent at least since the date when a complaint was filed in the Eastern District of Virginia. F5 has known or should have known that the acts it has induced constitute infringement because, for instance, it has been aware that network operators and service providers that purchase the Accused Instrumentalities will use them, resulting in direct infringement. (*See, e.g.,* https://www.f5.com/pdf/products/big-ip-dns-datasheet.pdf, Exhibit A; https://www.youtube.com/watch?v=9fooqDbwJIk, Exhibit B; https://www.f5.com/products/dns-delivery, Exhibit D; https://www.youtube.com/watch?v=UufRG2eeFmQ, Exhibit F; https://www.f5.com/pdf/products/big-ip-platforms-

Claims	Infringement Analysis with Exemplary Infringement Evidence
	datasheet.pdf, Exhibit G; https://www.f5.com/products/big-ip-services, Exhibit J; https://www.f5.com/products/big-ip-services/iseries-appliance#large, Exhibit K.) Further, F5 has indirectly infringed and continues to indirectly infringe this claim by contributing to infringement of this claim. For instance, components of the Accused Instrumentalities (*e.g.,* BIG-IP DNS; F5 VIPRION Platform and products; F5 BIG-IP iSeries Platform and products; BIG-IQ Centralized Management) are known by F5 to be especially made or especially adapted for use to infringe this claim, and each is not a staple article or commodity of commerce suitable for substantial non-infringing uses. F5 contributes to the infringement of this claim by making available for use, offering for sale, selling, and/or importing the components of the instrumentalities, to third parties, who, for example, use such components to practice this claim. (*See, e.g.,* https://www.f5.com/pdf/products/big-ip-dns-datasheet.pdf, Exhibit A; https://www.youtube.com/watch?v=9fooqDbwJIk, Exhibit B; https://www.f5.com/products/dns-delivery, Exhibit D; https://www.youtube.com/watch?v=UufRG2eeFmQ, Exhibit F; https://www.f5.com/pdf/products/big-ip-platforms-datasheet.pdf, Exhibit G; https://www.f5.com/products/big-ip-services, Exhibit J; https://www.f5.com/products/big-ip-services/iseries-appliance#large, Exhibit K.) Moreover, F5 has had notice of the Asserted Patent at least as of the filing date of a complaint in the Eastern District of Virginia.
Claim 16	
The method of claim 12, further comprising: removing one of the plurality of network devices from the cluster wherein the removed network device no longer communicates status information to at least the master device in the cluster such that the removed network device is no longer eligible to be selected to	On information and belief, the Accused Instrumentalities (*e.g.,* BIG-IP DNS, F5 VIPRION Platform and products, F5 BIG-IP iSeries Platform and products) enable removing one of the plurality of network devices from the cluster wherein the removed network device no longer communicates status information to at least the master device in the cluster such that the removed network device is no longer eligible to be selected to communicate with the client, as shown by the following exemplary evidence above and below. For instance, in case of unavailability of the selected virtual server or failure due to which the server (network device) no longer communicates with BIG-IP DNS (master device), BIG-IP DNS sends requests to another virtual server. In this way, the master device is removing the non-communicating servers, as shown below.

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Claims	Infringement Analysis with Exemplary Infringement Evidence	
communicate with the client.	Static Persist	BIG-IP DNS distributes DNS name resolution requests to the first available virtual server in a pool using the persist mask with the source IP address of the LDNS and a hash algorithm to determine the order of the virtual servers in the list. This hash algorithm orders the virtual servers in the list differently for each LDNS that is passing traffic to the system taking into account the specified CIDR of the LDNS. Each LDNS (and thus each client) generally resolves to the same virtual server; however, when the selected virtual server becomes unavailable, BIG-IP DNS sends requests to another virtual server until the original virtual server becomes available. Then BIG-IP DNS again resolves requests to that virtual server.
	https://techdocs.f5.com/content/kb/en-us/products/big-ip-dns/manuals/product/bigip-dns-load-balancing-12-1-0/_jcr_content/pdfAttach/download/file.res/BIG-IP_DNS__Load_Balancing.pdf, Exhibit E	

| Global Availability | BIG-IP DNS distributes DNS name resolution requests to the first available virtual server in a pool. BIG-IP DNS starts at the top of a manually configured list of virtual servers and sends requests to the first available virtual server in the list. Only when the virtual server becomes unavailable does BIG-IP DNS send requests to the next virtual server in the list. Over time, the first virtual server in the list receives the most requests and the last virtual server in the list receives the least requests. |

https://techdocs.f5.com/content/kb/en-us/products/big-ip-dns/manuals/product/bigip-dns-load-balancing-12-1-0/_jcr_content/pdfAttach/download/file.res/BIG-IP_DNS__Load_Balancing.pdf, Exhibit E

In addition to direct infringement of this claim by F5 (including its employees), F5 also has indirectly infringed and continues to indirectly infringe by actively inducing others, including network operators and services providers, to directly infringe this claim by using the Accused Instrumentalities. For instance, F5 has actively induced infringement by encouraging the use of the Accused Instrumentalities (*e.g.,* BIG-IP DNS; F5 VIPRION Platform and products; F5 BIG-IP iSeries Platform and products; BIG-IQ Centralized Management) in ways that infringe this claim. F5 knew or should have known that such encouragement would induce infringement. Such induced infringement has occurred at least since F5 became aware of the Asserted Patent. F5 has had knowledge of the Asserted Patent at least since the date when a complaint was filed in the Eastern District of Virginia. F5 has taken active steps with the specific intent to encourage and cause others to use each Accused Instrumentality in ways that infringe this claim. Such active steps by F5 with specific intent to induce infringement have included, among other things, advertising, promoting, marketing, making available for use, offering to sell, and/or selling the Accused Instrumentalities to others; encouraging and influencing other companies to import, offer to sell, and/or sell the Accused Instrumentalities; and directing and instructing others to use the Accused Instrumentalities in infringing ways. F5 has performed the aforementioned active steps with the knowledge of the Asserted Patent at least since the date when a complaint was filed in the Eastern District of Virginia. F5 has known or should have known that the acts it has induced constitute infringement because, for instance, it has been aware that network operators and service providers that purchase the Accused Instrumentalities will use them, resulting in direct infringement. (*See, e.g.,* https://www.f5.com/pdf/products/big-ip-dns-datasheet.pdf, Exhibit A; https://www.youtube.com/watch?v=9fooqDbwJIk, Exhibit B; https://www.f5.com/products/dns-delivery, Exhibit D;

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Claims	Infringement Analysis with Exemplary Infringement Evidence
	https://www.youtube.com/watch?v=UufRG2eeFmQ, Exhibit F; https://www.f5.com/pdf/products/big-ip-platforms-datasheet.pdf, Exhibit G; https://www.f5.com/products/big-ip-services, Exhibit J; https://www.f5.com/products/big-ip-services/iseries-appliance#large, Exhibit K.) Further, F5 has indirectly infringed and continues to indirectly infringe this claim by contributing to infringement of this claim. For instance, components of the Accused Instrumentalities (*e.g.,* BIG-IP DNS; F5 VIPRION Platform and products; F5 BIG-IP iSeries Platform and products; BIG-IQ Centralized Management) are known by F5 to be especially made or especially adapted for use to infringe this claim, and each is not a staple article or commodity of commerce suitable for substantial non-infringing uses. F5 contributes to the infringement of this claim by making available for use, offering for sale, selling, and/or importing the components of the instrumentalities, to third parties, who, for example, use such components to practice this claim. (*See, e.g.,* https://www.f5.com/pdf/products/big-ip-dns-datasheet.pdf, Exhibit A; https://www.youtube.com/watch?v=9fooqDbwJIk, Exhibit B; https://www.f5.com/products/dns-delivery, Exhibit D; https://www.youtube.com/watch?v=UufRG2eeFmQ, Exhibit F; https://www.f5.com/pdf/products/big-ip-platforms-datasheet.pdf, Exhibit G; https://www.f5.com/products/big-ip-services, Exhibit J; https://www.f5.com/products/big-ip-services/iseries-appliance#large, Exhibit K.) Moreover, F5 has had notice of the Asserted Patent at least as of the filing date of a complaint in the Eastern District of Virginia.